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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,551	07/30/2003	Robert Ehrhardt	3002	1550
826	7590	06/24/2005	EXAMINER	
			HUFFMAN, JULIAN D	
		ART UNIT		PAPER NUMBER
		2853		

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/604,551	EHRHARDT, ROBERT
	Examiner Julian D. Huffman	Art Unit 2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 April 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 11,23,26,27,33 and 35-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 11,23,26,27 and 35 is/are allowed.
- 6) Claim(s) 36-38 and 40-47 is/are rejected.
- 7) Claim(s) 39 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)              |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____.  |

## DETAILED ACTION

### ***Claim Objections***

1. Claims 33 and 36 are objected to because of the following informalities:

In line 5 of claims 33 and 36, the term "the thermal print head assembly" lacks antecedent basis.

Claim 35 is objected to because claim 35 is identical to claim 27.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 36-38 and 40-47 rejected under 35 U.S.C. 103(a) as being unpatentable over Nardone et al. (U.S. 5,546,116) in view of Sato et al. (6,634818 B2).

Nardone et al. discloses the following:

With regards to claim 36, a printer (fig. 2) for printing on media spaced longitudinally along a carrier web (fig. 5, element 79), the printer comprising :  
a driving mechanism (fig. 5, element 116) for advancing the carrier web along a media path (column 7, lines 7-11);  
a frame (fig. 7, element 146);

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a print head assembly (fig. 11, element 148) supported by said frame (146), the thermal print head assembly mounted for movement toward and away from the carrier web (column 9, line 31-column 10, line 28); and

a sensor (fig. 7, element 205) in communication with said print head assembly for sensing a displacement of the printhead assembly relative to the frame due to the passage of the media beneath the print head (column 10, lines 16-28, the sensor senses if the printhead is in the up or down position, when the printhead is in the down position, the printhead is printing on the media and the media is located beneath the printhead, therefore the sensor is capable of detecting passage of media beneath the print head).

With regards to claim 37, the position sensor is connected to the frame (fig. 7).

With further regards to claims 38 and 43, a pivot (fig. 7, element 194) connected to the frame of the print head assembly, wherein the pivot allows the print head to rotate relative to the frame (column 9, lines 31-35).

With regards to claims 42 and 47, a bias mechanism (fig. 7, element 203, column 9, lines 54-60 and 10-14) urging the print head toward the web so that the print head is pressed against the web (column 10, lines 4-6).

With regards to claims 41 and 46, a controller (column 4, lines 55-57) responsive to the sensor for synchronizing printing with the edge of print media (column 10, lines 23-28).

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The limitations directed towards the media do not further limit the printer. The media is not a part of the "printer for printing on media", or the "print head assembly for use in a printer for printing on media". Further, the material or article worked upon by an apparatus does not further limit the apparatus (see MPEP 2115). Applicant may wish to claim a printer including print media, or a printing system, to give weight to these claim limitations.

Nardone et al. does not expressly disclose a sensor with an emitter and detector.

Sato et al. discloses a photointerrupter which has a light emitter and a light detector (element 120, column 8, lines 1-2).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the sensor of Sato et al. in the device of Nardone et al., as taught by Sato into Nardone, for the purpose of providing a sensor which has a large signal output and does not require high accuracy (column 8, lines 5-7).

#### ***Allowable Subject Matter***

4. Claims 11, 23, 26, 27, 33 and 35 are allowed.

Claim 39 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary reason for the indication of allowance of claims 11, 23, 26, 27, 33, 35 and 39 is the inclusion of the limitation of a printer with a sensor including a light emitter and detector separated by a variable area mask. It is this limitation found in the claims, as they are claimed in the combination of, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

### ***Response to Arguments***

5. Applicant's argument that claims 36 and 43 and their dependent claims are patentable for the same reasons as the other claims 11, 23 and 33 is noted. However, though independent claims 36 and 43 recite the emitter and detector, claims 36-38 and 40-47 are different in scope from the allowable dependent claims and do not recite the allowable feature of the variable area mask. These claims are unpatentable over Nardone in view of Sato, as outlined above.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(JH)

JH

15 June 2005

6/11- 0/6  
K. FEGGINS  
PRIMARY EXAMINER